

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

Amendment of the Commission's Rules to Promote) WT Docket No. 19-140
Aviation Safety)
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COMMENTS OF BRIAN CROWE

Respectfully submitted,

BRIAN CROWE



By: _____

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August 24, 2019

I am writing to comment on WT Docket No. 19-140, Amendment of the Commission's Rules to Promote Aviation Safety. My company TELE-WORX is a consulting company that specializes in the implementation of new telecommunications technologies and the delivery of new telecommunication services since 1995. TELE-WORX is typically engaged by equipment manufacturers to ensure that products are compliant with prevailing technical standards documents. TELE-WORX also addresses the critical nuances of design that favorably distinguish the client's product from competitors' products. If my company is successful and I am influential with my client, their products will more easily garner mandatory industry certifications and reliably operate with other manufacturers' equipment in a telecommunications network.

One long standing client of mine engaged me to work on their behalf in the WiMAX Forum and serve as the Aviation Working Group leader in the Forum for a number of years. The Aviation Working Group is generally concerned with the creation of a set of documents that describe equipment certification requirements for the new Aeronautical Mobile Airport Communications System or AeroMACS. AeroMACS is a ground-based communication network that the Federal Aviation Administration includes in their NextGen program of strategic infrastructure improvements for safety and regularity of flight. My role with the WiMAX Forum and with my client gives me a deep understanding of technical and market issues associated with AeroMACS. I am interested in seeing AeroMACS successfully implemented world-wide for the business benefit of my client and the Forum, and for the enhanced safety of the public who fly in the National Air Space every day.

With this background and interest in AeroMACS, I would like to offer the following comments on WT Docket No. 19-140.

1) Regarding NPRM ¶ 38 Eligibility Rules:

The Commission's eligibility rules must encourage AeroMACS deployments by any stakeholder. The proposed language in the NPRM focuses heavily on the Airport to deploy and license AeroMACS network equipment by granting the Airport automatic eligibility. Stakeholders in the infrastructure also include airlines, established and new aeronautical communications network providers or ACNPs, and developmental users that come forward with new equipment, applications and services that potentially help to provide for the safety and regularity of flight on the airport surface. Eligibility rules that give all these stakeholders automatic eligibility will remove some significant barriers to the deployment AeroMACS network equipment and access to AeroMACS services.

The Commission's eligibility rules must include ACNPs for automatic eligibility. The community of ACNPs are key to providing communications services at smaller airports and regional airports in the United States.

The Commission's eligibility rules must include manufacturers and other capability providers on a temporary basis to facilitate demonstration and ongoing development and improvement of product capabilities.

2) Regarding NPRM ¶ 40 Channel Management:

Also, regarding NPRM ¶ 41-43 Coordination with Other Authorized Users:

A nationwide AeroMACS channel manager organization is essential for uniform, fair and efficient management of the AeroMACS channels. A nationwide AeroMACS channel manager organization saves the AeroMACS user time and expense by providing a single point of contact to negotiate allocations at any airport in the country. An administered sharing strategy by a nationwide channel manager organization would:

- a) Tailor allocations among Federal users and commercial users to maximize the benefit from the available spectrum
- b) Tailor allocations uniquely for each airport to account for size and location to further maximize the benefit from the available spectrum.
- c) Coordinate with GlobalStar and flight test system operators as necessary.

Without a nationwide channel management organization, each airport would need to develop a baseline of expertise to solve these problems to make prudent channel assignments.

3) Regarding NPRM ¶ 37, 39 Licensing and Coordination:

Licensing rules must be flexible and not impose burdensome costs and processes on AeroMACS users. In this regard:

- a) Licensing of fixed and mobile AeroMACS units or subscriber stations is analogous to licensing individual cellphones; it would be unnecessarily burdensome.
- b) A nationwide AeroMACS channel manager organization would automatically have the same location information for the fixed and mobile AeroMACS units that a formal FCC license for the unit would have; it would be duplicative. This information would certainly be available to the FCC on demand.
- c) A nationwide AeroMACS channel manager organization would perform a coordination process that would preclude a requirement for pre-coordinating AeroMACS deployments with the FAA regional office.
- d) AeroMACS licensing by RULE would be significantly more efficient for the AeroMACS user.

4) Regarding NPRM ¶ 44 Technical Rules:

Uniform AeroMACS deployment is essential worldwide. Technical rules must align with the International Civil Aviation Organization or ICAO AeroMACS Standards and Recommended Practices. Further, technical rules must also align with United States Radio Technical Commission for Aeronautics or RTCA AeroMACS Minimum Operational Performance Standards.

5) CONCLUSION:

Automatic AeroMACS eligibility rules that include network service providers and manufacturers are essential to encourage rapid deployment of AeroMACS services at airports nationwide.

A nationwide AeroMACS channel manager organization would be able to efficiently facilitate channel allocation and sharing among Federal and commercial users for every airport in the country. Such an organization would streamline administration of channel assignments for the benefit of every AeroMACS user and effectively coordinate with all other spectrum users.

Licensing of fixed and mobile AeroMACS units must be RULE-based to minimize the licensing burden and costs for every AeroMACS user.

Finally, technical rules must fully align with ICAO's AeroMACS Standards and Recommended Practices and RTCA's AeroMACS Minimum Operational Performance Standards.